FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY

R. R. Donnelley Seymour, Inc.
709 A Avenue East
Seymour, Indiana 47274

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F071-13917-00024	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: February 25, 2002 Expiration Date: February 25, 2007

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary source, operation of heatset web offset printing press operation.

Authorized Individual:	Bill Baird
Source Address:	709 A Avenue East, Seymour, Indiana 47274
Mailing Address:	P.O. Box 385, Seymour, Indiana 47274
SIC Code:	2752
Source Location Status:	Jackson
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source under PSD; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

Six (6) heatset web offset printing presses, controlled by two (2) parallel natural gas fired thermal oxidizers (ID Nos. TAB-1 and TAB-2), with a maximum heat input rate of 0.7 and 1.98 million British thermal units (MMBtu) per hour, respectively, exhausting through stack ID No. TAB-1 and TAB-2, respectively, including:

(a) one (1) heatset web offset printing press (ID No. AIG-002) installed in April 1993, with a maximum line speed of 1,080 feet per minute and a maximum print width of 25 inches, with associated in-line equipment;

(b) one (1) heatset web offset printing press (ID No. AIG-004) installed in March 1994 with two (2) lines, each with a maximum line speed of 1,400 feet per minute and each with a maximum print width of 36 inches, with associated in-line equipment;

(c) one (1) heatset web offset printing press (ID No. AIG-005) installed in November 1994 with two (2) lines, each with a maximum line speed of 1,200 feet per minute and each with a maximum print width of 50 inches, with associated in-line equipment;

(d) one (1) heatset web offset printing press (ID No. AIG-006) installed in July 1996, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment;

(e) one (1) heatset web offset printing press (ID No. AIG-007) installed in May 1998, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment; and

(f) one (1) heatset web offset printing press (ID No. AIG-008) installed in May 1999, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas fired combustion sources with heat input equal to or less than 10 million British thermal units per hour;

(b) combustion source flame safety purging on startup;

(c) storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons;

(d) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(e) cleaners and solvents characterized as follows:
(1) having a vapor pressure equal to or less than 2 kPa, measured at 38ºC, or
(2) having a vapor pressure equal to or less than 0.7 kPa, measured at 20ºC;

(f) the following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment;

(g) closed loop heating and cooling systems;

(h) infrared cure equipment;

(i) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;

(j) trimmers that do not produce fugitive emissions and that are equipped with a dust collector or trim material recovery;

(k) paved and unpaved roads and parking lots with public access;

(l) blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling towers;

(m) filter or coalesce media changeout; and

(n) the following miscellaneous activities: film wash, ink jets, glass cleaners, plate compressors, proof marker system, film processors, ink blending, and a scrap handling system.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM , the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]

(c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; and

(3) Denial of a permit renewal application.

(b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:
Indiana Department of Environmental Management

Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, . IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

Failure to notify IDEM, OAQ, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ , may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ , by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ , to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ , at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ , may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ , any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ , in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action, or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-2;

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.9 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.12 Maintenance of Emission Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]

(a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no often less than once an hour until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

C.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

(a) A compliance schedule for meeting the requirements of 40 CFR 68; or

(b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

(b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

Six (6) heatset web offset printing presses, controlled by two (2) parallel natural gas fired thermal oxidizers (ID Nos. TAB-1 and TAB-2), with a maximum heat input rate of 0.7 and 1.98 million British thermal units (MMBtu) per hour, respectively, exhausting through stack ID No. TAB-1 and TAB-2, respectively, including:

(a) one (1) heatset web offset printing press (ID No. AIG-002) installed in April 1993, with a maximum line speed of 1,080 feet per minute and a maximum print width of 25 inches, with associated in-line equipment;

(b) one (1) heatset web offset printing press (ID No. AIG-004) installed in March 1994 with two (2) lines, each with a maximum line speed of 1,400 feet per minute and each with a maximum print width of 36 inches, with associated in-line equipment;

(c) one (1) heatset web offset printing press (ID No. AIG-005) installed in November 1994 with two (2) lines, each with a maximum line speed of 1,200 feet per minute and each with a maximum print width of 50 inches, with associated in-line equipment;

(d) one (1) heatset web offset printing press (ID No. AIG-006) installed in July 1996, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment;

(e) one (1) heatset web offset printing press (ID No. AIG-007) installed in May 1998, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment; and

(f) one (1) heatset web offset printing press (ID No. AIG-008) installed in May 1999, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 FESOP Limit [326 IAC 2-8-4][326 IAC 8-1-6] [326IAC 2-2]

(a) The total volatile organic compounds (VOC) delivered to the applicators of the six (6) printing presses AIG-002, AIG-004, AIG-005, AIG-006, AIG-007 and AIG-008 shall be limited such that the controlled VOC emissions shall not exceed 65.60 tons per twelve (12) consecutive month period, based on the following:

(1) 20 percent (by weight) ink VOC retention in the substrate for heatset offset printing;

(2) A VOC capture system which shall achieve:
(A) 100 percent (%) minimum efficiency , by weight, for press ready inks;
(B) 70 percent (%) minimum efficiency, by weight, for press ready fountain solutions; and
(C) 40 percent (%) minimum efficiency, by weight, for automatic cleaning solutions.

(3) A minimum destruction efficiency of 95 percent (%), by weight, of captured VOC at the two (2) thermal oxidizers, TAB-1 and TAB-2.

(b) Compliance with the requirements of condition D.1.1(a) shall limit the potential to emit of VOC to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD) shall not apply.

D.1.2 FESOP Hazardous Air Pollutant Limit [326 IAC 2-8]

Pursuant to 326 IAC 2-8, the total volatile organic hazardous air pollutants (VHAP) delivered to the applicators of the six (6) printing presses AIG-002, AIG-004, AIG-005, AIG-006, AIG-007 and AIG-008 shall be limited such that the source wide single HAP and total HAPs emissions shall not exceed 10 and 25 tons per twelve (12) consecutive month period, respectively. Therefore, the requirements of 326 IAC 2-7 shall not apply.

D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform VOC testing for the VOC capture system and the two (2) natural gas fired thermal oxidizers (TAB-1 and TAB-2) utilizing Methods 25 (40 CFR 60, Appendix A) for VOC, or other methods as approved by the Commissioner. This test shall be performed to establish the minimum duct pressure or fan amperage, and the minimum operating temperature to demonstrate compliance with the capture and control efficiencies in condition D.1.1. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

D.1.5 Volatile Organic Compounds (VOC) and HAP

Compliance with the VOC and HAP content and usage limitations contained in Conditions D.1.1 and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.6 Volatile Organic Compound Control

(a) The capture system and the two (2) thermal oxidizers, identified as TAB-1 and TAB-2, shall be in operation at all times when the six (6) printing presses (AIG-002, AIG-004, AIG-005, AIG-006, AIG-007 and AIG-008) are in operation.

(b) When operating the six (6) printing presses (AIG-002, AIG-004, AIG-005, AIG-006, AIG-007 and AIG-008), the two (2) thermal oxidizers (TAB-1 and TAB-2), with a maximum heat input rate of 0.7 and 1.98 MMBtu/hr, respectively, shall maintain a minimum operating temperature of 1,400ºF or a temperature determined in the most recent compliance stack tests to maintain a minimum destruction efficiency of 95 percent (weight) of captured volatile organic compounds. Compliance with this condition shall deem 326 IAC 8-1-6 and 326 IAC 2-8 satisfied.

(c) When operating the six (6) printing presses (AIG-002, AIG-004, AIG-005, AIG-006, AIG-007 and AIG-008), the VOC capture system shall maintain a minimum duct pressure or fan amperage or a duct pressure or fan amperage determined in the most recent compliance stack tests to maintain a minimum capture efficiency of 100 percent (weight) for press ready inks, a minimum capture efficiency of 70 percent (weight) for press ready fountain solutions and a minimum capture efficiency of 40 percent (weight) for automatic cleaning solutions. Compliance with this condition shall deem 326 IAC 8-1-6 and 326 IAC 2-8 satisfied.

D.1.7 VOC and HAP Emissions

(a) Compliance with Conditions D.1.1 and D.1.2 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound (VOC) usage, and single HAP and total HAP usage for the most recent twelve (12) month period.

(b) Compliance with Conditions D.1.1 and D.1.2 shall be determined using the following equation for VOC and HAP usage: VOC, HAP usage = [(VOC, HAP input) x control efficiency x flash-off factor]

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.8 Parametric Monitoring

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizers (TAB-1 and TAB-2) for measuring operating temperature. The output of this system shall be recorded, and that temperature shall be greater than or equal to the temperature used to demonstrate compliance during the most recent compliance stack test.

(b) The duct pressure or fan amperage shall be observed at least once per week when the thermal oxidizers are in operation. This pressure or amperage shall be maintained within the range as established in the most recent compliant stack test.

(c) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the reading is outside the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.9 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1, D.1.2 and D.1.7, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC and HAP usage limits and/or the VOC and HAP emission limits established in Conditions D.1.1, D.1.2 and D.1.7.

(1) The amount and VOC and HAP content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) A log of the dates of use;

(3) The heatset offset printing ink; fountain solution; cleaning solution; and miscellaneous other solvent solution usages for each month;

(4) The total VOC usage for each month and the weight of the VOCs emitted for each compliance period;

(5) The total HAP usage for each month and the weight of single and total HAPs emitted for each compliance period;

(6) The continuous temperature records for the thermal incinerators and the temperatures used to demonstrate compliance during the most recent compliance stack test; and

(7) Weekly records of the duct pressure or fan amperage.

(b) All records shall be maintained in accordance with Section C - General Record Keeping

D.1.10 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: R. R. Donnelley Seymour, Inc.
Source Address: 709 A Avenue East, Seymour, Indiana 47274
Mailing Address: P.O. Box 385, Seymour, Indiana 47274
FESOP No.: 071-13917-00024

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: R. R. Donnelley Seymour, Inc.
Source Address: 709 A Avenue East, Seymour, Indiana 47274
Mailing Address: P.O. Box 385, Seymour, Indiana 47274
FESOP No.: 071-13917-00024

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: R. R. Donnelley Seymour, Inc.
Source Address: 709 A Avenue East, Seymour, Indiana 47274
Mailing Address: P.O. Box 385, Seymour, Indiana 47274
FESOP No.: 071-13917-00024
Facility: Six (6) heatset web offset printing presses (ID Nos. AIG-002, AIG-004, AIG-005, AIG-006, AIG-007, AIG-008).
Parameter: Volatile organic compounds (VOC)
Limit: Total VOC emissions from these six (6) presses shall not exceed 65.06 ton/yr, based on: (1) 20% (wt.) ink VOC retention in the substrate for heatset offset printing; (2) the following capture efficiencies for the capture system of the thermal oxidizer controlling the six (6) presses: ink - 100%, fountain solution - 70%, and automatic cleaning solution - 40%; and each thermal oxidizer minimum destruction efficiency of captured VOC of 95% (wt.).

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: R. R. Donnelley Seymour, Inc.
Source Address: 709 A Avenue East, Seymour, Indiana 47274
Mailing Address: P.O. Box 385, Seymour, Indiana 47274
FESOP No.: 071-13917-00024
Facility: Six (6) heatset web offset printing presses (ID Nos. AIG-002, AIG-004, AIG-005, AIG-006, AIG-007, AIG-008).
Parameter: worst case single HAP usage and total HAP usage
Limit: The total combined emissions of the worst case single VHAP and total VHAPs from these six (6) presses shall not exceed 10 and 25 tons per year, respectively, based on: (1) 20% (wt.) ink VOC retention in the substrate for heatset offset printing; (2) the following capture efficiencies for the capture system of the thermal oxidizer controlling the six (6) presses: ink - 100%, fountain solution - 70%, and automatic cleaning solution - 40%; and each thermal oxidizer minimum destruction efficiency of captured VOC of 95% (wt.).

YEAR: _____

Month	Column 1a	Column 1b	Column 2a	Column 2b	Column 1a + 2a	Column 1b + 2b
	Single HAP This Month	Total HAP This Month	Single HAP Previous 11 months	Total HAP Previous 11 Months	Single HAP 12 Month Total	Total HAP 12 Month Total
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: R. R. Donnelley Seymour, Inc.
Source Address: 709 A Avenue East, Seymour, Indiana 47274
Mailing Address: P.O. Box 385, Seymour, Indiana 47274
FESOP No.: 071-13917-00024

Months: _____ to _____ Year: _____

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Page 2 of 2

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: ____________________

Title/Position: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Name: R. R. Donnelley Seymour, Inc.
Source Location: 709 A Avenue East, Seymour, Indiana 47274
County: Jackson
SIC Code: 2752
Operation Permit No.: F071-13917-00024
Permit Reviewer: Adeel Yousuf/EVP

On January 16, 2002, the Office of Air Quality (OAQ) had a notice published in the The Tribune in Seymour, Indiana, stating that R. R. Donnelley Seymour, Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal to operate a heatset web offset printing source. The notice also stated that OAQ proposed to issue a FESOP Renewal for this operation and provided information on how the public could review the proposed FESOP Renewal and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP Renewal should be issued as proposed.

Upon further review, the OAQ has decided to make the following changes to the FESOP Renewal. Bolded language has been added and the language with a line through it has been deleted.

1. Condition A.5 Prior Permit Conditions was removed and a new Condition Prior Permit Superseded was added to the permit to implement the intent of the new rule 326 IAC 2-1.1-9.5.

~~A.5 Prior Permit Conditions~~

~~(a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.~~

~~(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.~~

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

2. The name of the condition has been changed to better reflect the contents of the condition.

C.16 Compliance Response Plan - ~~Failure to Take Response Steps~~ **Preparation, Implementation, Records, and Reports** [326 IAC 2-8-4] [326 IAC 2-8-5]

3. Conditions D.1.8 has been revised to reflect the title change of Condition C.16.

D.1.8 Parametric Monitoring

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizers (TAB-1 and TAB-2) for measuring operating temperature. The output of this system shall be recorded, and that temperature shall be greater than or equal to the temperature used to demonstrate compliance during the most recent compliance stack test.

(b) The duct pressure or fan amperage shall be observed at least once per week when the thermal oxidizers are in operation. This pressure or amperage shall be maintained within the range as established in the most recent compliant stack test.

(c) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the reading is outside the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Response Plan - ~~Failure to Take Response Steps~~ **Preparation, Implementation, Records, and Reports**, shall be considered a violation of this permit.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name: R. R. Donnelley Seymour, Inc.
Source Location: 709 A Avenue East, Seymour, Indiana 47274
County: Jackson
SIC Code: 2752
Operation Permit No.: F071-13917-00024
Permit Reviewer: Adeel Yousuf/EVP

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from R. R. Donnelley Seymour, Inc. relating to the operation of a heatset web offset printing source. R. R. Donnelley Seymour, Inc. was issued FESOP 071-6121-00024 on December 9, 1996 that will expire on December 9, 2001.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

Six (6) heatset web offset printing presses, controlled by two (2) parallel natural gas fired thermal oxidizers (ID Nos. TAB-1 and TAB-2), with a maximum heat input rate of 0.7 and 1.98 million British thermal units (MMBtu) per hour, respectively, exhausting through stack ID No. TAB-1 and TAB-2, respectively, including:

(a) one (1) heatset web offset printing press (ID No. AIG-002) installed in April 1993, with a maximum line speed of 1,080 feet per minute and a maximum print width of 25 inches, with associated in-line equipment;

(b) one (1) heatset web offset printing press (ID No. AIG-004) installed in March 1994 with two (2) lines, each with a maximum line speed of 1,400 feet per minute and each with a maximum print width of 36 inches, with associated in-line equipment;

(c) one (1) heatset web offset printing press (ID No. AIG-005) installed in November 1994 with two (2) lines, each with a maximum line speed of 1,200 feet per minute and each with a maximum print width of 50 inches, with associated in-line equipment;

(d) one (1) heatset web offset printing press (ID No. AIG-006) installed in July 1996, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment;

(e) one (1) heatset web offset printing press (ID No. AIG-007) installed in May 1998, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment; and

(f) one (1) heatset web offset printing press (ID No. AIG-008) installed in May 1999, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas fired combustion sources with heat input equal to or less than 10 million British thermal units per hour;

(b) combustion source flame safety purging on startup;

(c) storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons;

(d) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(e) cleaners and solvents characterized as follows:
(1) having a vapor pressure equal to or less than 2 kPa, measured at 38ºC, or
(2) having a vapor pressure equal to or less than 0.7 kPa, measured at 20ºC;

(f) the following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment;

(g) closed loop heating and cooling systems;

(h) infrared cure equipment;

(i) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;

(j) trimmers that do not produce fugitive emissions and that are equipped with a dust collector or trim material recovery;

(k) paved and unpaved roads and parking lots with public access;

(l) blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling towers;

(m) filter or coalesce media changeout; and

(n) the following miscellaneous activities: film wash, ink jets, glass cleaners, plate compressors, proof marker system, film processors, ink blending, and a scrap handling system.

Existing Approvals

(a) FESOP 071-6121-00024, issued on December 9, 1996; and expires on December 9, 2001.

(b) First Minor Modification 071-8326-00024, issued on June 3, 1997.

(c) First Significant Modification 071-9418-00024, issued on May 7, 1998.

(d) First Significant Permit Revision 071-10541-00024, issued on May 5, 1999.

(e) First Administrative Amendment 071-11036-00024, issued on July 20, 1999.

(f) Second Administrative Amendment 071-11330-00024, issued on September 27, 1999.

All conditions from previous approvals were incorporated into this FESOP.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on February 14, 2001. Additional information was received on October 16, 2001.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (fourteen (14) pages).

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	0.55
PM-10	2.19
SO_2	0.17
VOC	452.75
CO	24.24
NO_x	28.86

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Unrestricted Potential Emissions (tons/yr)
Glycol Ethers	11.55
Xylene	0.2
Cumene	0.17
Vinyl Acetate	0.17
Naphthalene	0.72
TOTAL	15.53

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of VOC is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year or the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Potential to Emit After Issuance

The source, issued a FESOP on December 9, 1996, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP. (F071-6121-00024; issued on December 9, 1996).

	Potential to Emit After Issuance (tons/year)						
Process/emission unit	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
AIG-002	-	-	-	2.30	-	-	0.56 (total) 0.43 (single)
AIG-004	-	-	-	16.78	-	-	0.34 (total) 0.19 (single)
AIG-005	-	-	-	19.97	-	-	0.38 (total) 0.23 (single)
AIG-006	-	-	-	8.85	-	-	0.17 (total) 0.10 (single)
AIG-007	-	-	-	8.85	-	-	0.17 (total) 0.10 (single)
AIG-008	-	-	-	8.85	-	-	2.88 (total) 2.81 (single)
Insignificant Acitivities	0.55	2.19	0.17	3.43	24.24	28.86	0.54 (total) 0.51 (single)
Total PTE After Issuance	0.55	2.19	0.17	69.03	24.24	28.86	5.04 (total) 3.86 (single)

Note:
VOC emissions including volatile HAPs, from printing presses AIG-002, 004, 005, 006, 007 and 008 are controlled by two (2) thermal oxidizers in parallel (TAB-1 and TAB-2) with destruction efficiency of 95%.

County Attainment Status

The source is located in Jackson County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Jackson County has been designated as attainment or unclassifiable for ozone. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Federal Rule Applicability

There are no new federal rules applicable to the source during this FESOP renewal review process. The applicability determination that follows is based on that conducted for the original FESOP F071-6121-00024, issued on December 9, 1996.

(a) 40 CFR Part 60, Subparts K, Ka, and Kb (Standards of Performance for Petroleum Liquid Storage Vessels and Volatile Liquid Storage Vessels)

The storage tanks with capacity less than or equal to 1,000 gallons as an insignificant activity, is not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Parts 60.110; 110a - 115a; and 110b - 117b, as Subparts K, Ka, and Kb, respectively) since the tank storage capacity is below the minimum applicable threshold to the three rules (i.e., 40 cubic meters (10,568 gallons)).

There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) The six (6) printing presses identified as AIG-002, AIG-004, AIG-005, AIG-006, AIG-007 and AIG-008, are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60, Subpart QQ), because they are heatset web offset lithographic presses, and not publication rotogravure printing presses.

(c) The six (6) printing presses identified as AIG-002, AIG-004, AIG-005, AIG-006, AIG-007 and AIG-008, are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), (40 CFR 63.820, Subpart KK) because they are heatset web offset lithographic presses, and not publication rotogravure, packaging rotogravure or wide-web flexographic printing presses.

State Rule Applicability - Entire Source

There are no new state rules applicable to the entire source during this FESOP renewal review process. The applicability determination that follows is based on that conducted fro the original FESOP F071-6121-00024, issued on December 9, 1996.

326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration, PSD)

Pursuant to 326 IAC 2-2 and 40 CFR 52.21 (PSD), this source, constructed in 1993 is still not considered a major source because it has the potential to emit less than 250 tons per year of any criteria pollutant and it is not one of the 28 listed source categories. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, do not apply.

326 IAC 2-6 (Emission Reporting)

This source is located in Jackson County which is not one of the specifically listed counties, nor does the source have the potential to emit CO, VOC, NOx, PM10 (including fugitive emissions), or SO_2 in amounts at or exceeding 100 tons per year. The potential to emit of all other regulated pollutants is less than 100 tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-4.1-1 (New Source Toxics Control)

This source is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control) because no new or reconstructed facilities with a PTE of any single HAP at 10 tons per year or 25 tons per year of the combination HAPs have been installed since July 27, 1997. Therefore, 326 IAC 2-4.1-1 does not apply.

326 IAC 2-8-4 (FESOP)

This source is subject to 326 IAC 2-8-4 (FESOP). Pursuant to this rule, the total volatile organic compounds (VOC) delivered to the applicators of six (6) presses shall be limited such that the VOC emissions will be less than 65.60 tons per twelve (12) consecutive month period, rolled on a monthly basis. Compliance with this limitation shall also limit single volatile organic hazardous air pollutant (VHAP) and combined VHAP emissions to less than 10 and 25 tons per 12 consecutive month period, respectively. Therefore, the requirements of 326 IAC 2-7 do not apply.

326 IAC 5-1 (Visible Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

There are no new state rules determined as applicable to individual facilities at this source during this FESOP renewal review process. The applicability determination that follows is based on that conducted for the original FESOP F071-6121-00024, issued December 9, 1996:

326 IAC 6-3-2 (Process Operations)

The equipments listed at (f) and (j) in the **Insignificant Activity** section of this TSD, with a process weight rate less than 100 pounds per hour, shall be limited pursuant to Condition C.2 (Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour), as follows:

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

There will be no compliance monitoring condition inserted into the permit since the insignificant activity has no control device and does not have actual emissions exceeding 25 tons per year.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

The six (6) printing presses, identified as AIG-002, AIG-004, AIG-005, AIG-006, AIG-007 and AIG-008 are subject to the requirements of 326 IAC 8-1-6 because the potential VOC emissions from each press is greater than 25 tons per year. Pursuant to original FESOP No. 071-6121-00024, and Significant Modification and Revision 071-9418 and 071-10541, respectively, the two (2) thermal oxidizers (ID Nos. TAB-1 and TAB-2) have been determined as BACT for the presses.

Pursuant to 326 IAC 8-1-6 (New Facilities; General Reduction requirements), the six (6) heatset web offset printing presses (AIG-002, AIG-004, AIG-005, AIG-006, AIG-007 and AIG-008) shall be controlled by two (2) natural gas fired thermal oxidizers, with a maximum heat input rate of 0.7 and 1.98 MMBtu/hr, respectively, at a minimum temperature of 1,400 F or a minimum temperature determined in the compliance test to maintain a minimum capture efficiency of 100 percent (weight) for press ready inks, a minimum capture efficiency of 70 percent (weight) for press ready fountain solutions and a minimum capture efficiency of 40 percent (weight) for automatic cleaning solutions and a minimum destruction efficiency of 95 percent (weight) of captured volatile organic compounds. The thermal oxidizers shall be in operation at all times during which any of the six (6) printing presses (AIG-002, AIG-004, AIG-005, AIG-006, AIG-007 and AIG-008) are in operation.

326 IAC 8-5-5 (Graphic Arts Operations)

The six (6) printing presses (identified as AIG-002, AIG-004, AIG-005, AIG-006, AIG-007 and AIG-008) are not subject to the requirements of 326 IAC 8-5-5, because the six (6) printing presses do not involve packaging rotogravure, publication rotogravure or flexographic printing.

326 IAC 8-9-1 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-1, on and after October 1, 1995 stationary vessels used to store volatile organic liquids (VOL) must comply with the requirement of the rule if located in Clark, Floyd, Lake or Porter Counties. This rule is not applicable to this source since it is located in Jackson County.

Testing Requirements

All testing requirements from previous approvals were incorporated into this FESOP. This source utilizes two (2) natural gas fired thermal oxidizers to control VOC emissions from six (6) heatset web offset printing presses with a minimum 95% (wt.) destruction efficiency of captured VOC. Compliance stack test for VOCs shall be performed once every five years at the two (2) natural gas fired thermal oxidizers, with a maximum heat input rate of 0.7 and 1.98 MMBtu/hr, to determine the minimum thermal oxidizer temperature, fan amperage and duct velocity required to maintain a minimum 95% (wt.) destruction efficiency of captured VOC. Since compliance with the VOC destruction efficiency and operating temperature specified for oxidizers in the FESOP is needed to demonstrate compliance with 326 IAC 2-8 (FESOP), this testing requirement is continued.

Previous stack tests to comply with this requirement were conducted on:

(a) VOC test was performed on March 3, 1996.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

All compliance requirements from previous approvals were incorporated into this FESOP. The compliance monitoring requirements applicable to this source are as follows:

(1) The two (2) natural gas fired thermal oxidizers have applicable compliance monitoring conditions as specified below:

(a) The Permittee shall record the combustion chamber temperature of the two (2) thermal oxidizers, identified as TAB-1 and TAB-2 used in conjunction with the six (6) printing presses, identified as AIG-002, AIG-004, AIG-005, AIG-006, AIG-007 and AIG-008, continuously when the heatset web offset printing presses are in operation when venting to the atmosphere. Unless operated under conditions for which the Preventative Maintenance Plan specifies otherwise, the combustion chamber of the thermal oxidizers (TAB-1 and TAB-2), shall be maintained at a minimum temperature of 1,400^{o} F or a temperature established during the latest stack test, and the minimum air flow rate shall be maintained at 16,000 acfm and 20,000 acfm, respectively, or an air flow rate established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the temperature reading is lower than the above mentioned.

These monitoring conditions are necessary because the two (2) thermal oxidizers (TAB-1 and TAB-2) for the six (6) printing presses, (AIG-002, AIG-004, AIG-005, AIG-006, AIG-007 and AIG-008) must operate properly to ensure compliance with 326 IAC 2-8 (FESOP) and 326 IAC 8-1-6 (New Facilities; General Reduction Requirements).

Conclusion

The operation of this heatset web offset printing source shall be subject to the conditions of the attached proposed **FESOP No.: F071-13917-00024**.

Appendix A: Emission Calculations

Company Name: R. R. Donnelley Seymour, Inc.
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: 071-13917-00024
Reviewer: Adeel Yousuf / EVP

Uncontrolled Potential Emissions (tons/year)

	Emissions Generating Activity								
Pollutant	Printing Press AIG-002	Printing Press AIG-004	Printing Press AIG-005	Printing Press AIG-006	Printing Press AIG-007	Printing Press AIG-008	Natural Gas Combustion	Insignificant Activities	**TOTAL**
PM	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.55
PM10	0.00	0.00	0.00	0.00	0.00	0.00	2.19	0.00	2.19
SO2	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.17
NOx	0.00	0.00	0.00	0.00	0.00	0.00	28.86	0.00	28.86
VOC	37.84	109.03	129.80	57.55	57.55	57.55	1.59	1.84	452.75
CO	0.00	0.00	0.00	0.00	0.00	0.00	24.24	0.00	24.24
total HAPs	1.50	0.82	0.93	0.45	0.42	8.51	0.54	0.00	13.17
worst case single HAP	1.29 (Glycol Ethers)	0.57 (Glycol Ethers)	0.68 (Glycol Ethers)	0.30 (Glycol Ethers)	0.30 (Glycol Ethers)	8.39 (Glycol Ethers)	0.511 (Hexane)	0.00	1.53 (Glycol EtHers)

Total emissions based on rated capacity at 8,760 hours/year.

Controlled Potential Emissions (tons/year)

	Emissions Generating Activity								
Pollutant	Printing Press AIG-002 *	Printing Press AIG-004 *	Printing Press AIG-005 *	Printing Press AIG-006 *	Printing Press AIG-007 *	Printing Press AIG-008 *	Natural Gas Combustion	Insignificant Activities	**TOTAL**
PM	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.55
PM10	0.00	0.00	0.00	0.00	0.00	0.00	2.19	0.00	2.19
SO2	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.17
NOx	0.00	0.00	0.00	0.00	0.00	0.00	28.86	0.00	28.86
VOC	2.30	16.78	19.97	8.85	8.85	8.85	1.59	1.84	69.03
CO	0.00	0.00	0.00	0.00	0.00	0.00	24.24	0.00	24.24
total HAPs	0.56	0.34	0.38	0.17	0.17	2.88	0.54	0.00	5.04
worst case single HAP	0.43 (Glycol Ehters)	0.19 (Glycol Ethers)	0.23 (Glycol Ehters)	0.10 (Glycol Ethers)	0.10 (Glycol Ethers)	2.81 (Glycol Ethers)	0.511 (Hexane)	0.00	3.86 (Glycol Ethers)

Total emissions based on rated capacity at 8,760 hours/year, after control.

*Printing Presses AIG-002, 004, 005, 006, 007 and 008 are controlled by two Oxidizers (TAB-1 and TAB-2; installed in parallel) with destruction efficiency of 95%.

Appendix A: Emission Calculations
VOC From Printing Press Operations

Company Name: R. R. Donnelley Seymour, Inc.
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: 071-13917-00024
Reviewer: Adeel Yousuf / EVP

AIG 002

Potential Uncontrolled Emissions:

Throughput for Packaging Rotogravure Printing Press:

Press I.D.	Maximum Line Speed (ft/min)	Convent Feet to Inches	Maximum Print Width (in)	60 Min/ Hour	8,760 HR YEAR	1/1,000,000	Potential MMin²/Year
AIG 002	1,080	12	25.0	60	8,760	1,000,000	170,294

PRINTING VOC:

Ink Name	Maxium Coverage lbs/ MMin²	Weight % Organics	Flash Off %	Potential Throughput MMin²/Year	Tons/ 2,000 lbs	VOC Pounds per Hour	VOC Tons per Year
AIG 002 Ink	1.025	35.00%	80%	170,294	2,000	5.58	24.44
AIG-002 Glue	0.238	59.00%	100%	170,294	2,000	2.73	11.96
AIG-002 Fountain Solution	4.210	0.40%	100%	170,294	2,000	0.33	1.43
AIG-002 Non-Piling Additive	0.00024	50.60%	100%	170,294	2,000	0.00	0.01
Clean-Up Solvent VOCs							
AIG-002 Manual Cleaning Solution	0.079	100.00%	100%	170,294	2,000	1.54	6.73
Total Potential Uncontrolled Emissions:						**8.64**	**37.84**

Controlled Emissions:

Press I.D.	Control Device	Capture System Capture Efficiency	Thermal Oxidizer Destruction Efficiency	Controlled/Limited VOC Pounds per Hour	Controlled/Limited VOC Tons per Year
AIG 002 Ink	Thermal Oxidizer	100.00%	95.00%	0.28	1.22
AIG-002 Glue	Thermal Oxidizer	100.00%	95.00%	0.14	0.60
AIG-002 Fountain Solution	Thermal Oxidizer	70.00%	95.00%	0.11	0.48
AIG-002 Non-Piling Additive	Thermal Oxidizer	70.00%	95.00%	0.00	0.00
AIG-002 Manual Cleaning Solution	Thermal Oxidizer	40.00%	95.00%	0.95	4.17
Total Controlled Emissions:				**0.53**	**2.30**

Notes: Printing operations are mutually exclusive of cleaning operations, and are the worst case for Press

Methodology:
Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8,760 hours per year = MMin² per Year
VOC = Maximum Coverage pounds per MMin² * Weight percentage organics (volatiles minus water) * Flash off * Throughput * Tons per 2,000 pounds = Tons per Year
Controlled Emissions = Uncontrolled Emissions * (1 - (Capture Efficiency * Destruction Efficiency))

Appendix A: Emission Calculations
VOC From Printing Press Operations

Company Name: R. R. Donnelley Seymour, Inc.
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: 071-13917-00024
Reviewer: Adeel Yousuf / EVP

AIG 004

Potential Uncontrolled Emissions:

Throughput for Packaging Rotogravure Printing Press:

Press I.D.	No. of Rollers	Maximum Line Speed (ft/min)	Convent Feet to Inches	Maximum Print Width (in)	60 Min/ Hour	8,760 HR YEAR	1/1,000,000	Potential MMin²/Year
AIG 004	2	1,400	12	36.0	60	8,760	1,000,000	635,766

PRINTING VOC:

Ink Name		Maxium Coverage lbs/ MMin²	Weight % Organics	Flash Off %	Potential Throughput MMin²/Year	Tons/ 2,000 lbs	VOC Pounds per Hour	VOC Tons per Year
AIG-004 Ink		1.000	36.00%	80%	635,766	2,000	20.90	91.55
AIG-004 Fountain Solution		0.500	5.00%	100%	635,766	2,000	1.81	7.95
AIG-004 Silicone Solution		0.200	0.00%	100%	635,766	2,000	0.00	0.00
AIG-004 Non-Maintenance Products		3.00000	1.00%	100%	635,766	2,000	2.18	9.54
Clean-Up Solvent VOCs								
AIG-004 Manual Cleaning Solution		0.039	100.00%	100%	635,766	2,000	2.80	12.26
Total Potential Uncontrolled Emissions:							**24.89**	**109.03**

Controlled Emissions:

Press I.D.	Control Device	Capture System Capture Efficiency	Thermal Oxidizer Destruction Efficiency	Controlled/Limited VOC Pounds per Hour	Controlled/Limited VOC Tons per Year
AIG-004 Ink	Thermal Oxidizer	100.00%	95.00%	1.05	4.58
AIG-004 Fountain Solution	Thermal Oxidizer	70.00%	95.00%	0.61	2.66
AIG-004 Silicone Solution	Thermal Oxidizer	0.00%	n/a	0.00	0.00
AIG-004 Non-Maintenance Products	Thermal Oxidizer	0.00%	n/a	2.18	9.54
AIG-004 Manual Cleaning Solution	Thermal Oxidizer	40.00%	95.00%	1.74	7.60
Total Controlled Emissions:				**3.83**	**16.78**

Notes: Printing operations are mutually exclusive of cleaning operations, and are the worst case for Press

Methodology:
Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8,760 hours per year = MMin² per Year
VOC = Maximum Coverage pounds per MMin² * Weight percentage organics (volatiles minus water) * Flash off * Throughput * Tons per 2,000 pounds = Tons per Year
Controlled Emissions = Uncontrolled Emissions * (1 - (Capture Efficiency * Destruction Efficiency))

Appendix A: Emission Calculations
VOC From Printing Press Operations

Company Name: R. R. Donnelley Seymour, Inc.
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: 071-13917-00024
Reviewer: Adeel Yousuf / EVP

AIG 005

Potential Uncontrolled Emissions:

Throughput for Packaging Rotogravure Printing Press:

Press I.D.	No. of Rollers	Maximum Line Speed (ft/min)	Convent Feet to Inches	Maximum Print Width (in)	60 Min/ Hour	8,760 HR YEAR	1/1,000,000	Potential MMin²/Year
AIG 005	2	1,200	12	50.0	60	8,760	1,000,000	756,864

PRINTING VOC:

Ink Name		Maxium Coverage lbs/ MMin²	Weight % Organics	Flash Off %	Potential Throughput MMin²/Year	Tons/ 2,000 lbs	VOC Pounds per Hour	VOC Tons per Year
AIG-005 Ink		1.000	36.00%	80%	756,864	2,000	24.88	108.99
AIG-005 Fountain Solution		0.500	5.00%	100%	756,864	2,000	2.16	9.46
AIG-005 Silicone Solution		0.200	0.00%	100%	756,864	2,000	0.00	0.00
AIG-005 Non-Maintenance Products		3.00000	1.00%	100%	756,864	2,000	2.59	11.35
Clean-Up Solvent VOCs								
AIG-005 Manual Cleaning Solution		0.032	100.00%	100%	756,864	2,000	2.80	12.26
Total Potential Uncontrolled Emissions:							**29.64**	**129.80**

				Controlled Emissions:				
Press I.D.				Control Device	Capture System Capture Efficiency	Thermal Oxidizer Destruction Efficiency	Controlled/Limited VOC Pounds per Hour	Controlled/Limited VOC Tons per Year
AIG-005 Ink				Thermal Oxidizer	100.00%	95.00%	1.24	5.45
AIG-005 Fountain Solution				Thermal Oxidizer	70.00%	95.00%	0.72	3.17
AIG-005 Silicone Solution				Thermal Oxidizer	0.00%	n/a	0.00	0.00
AIG-005 Non-Maintenance Products				Thermal Oxidizer	0.00%	n/a	2.59	11.35
AIG-005 Manual Cleaning Solution				Thermal Oxidizer	40.00%	95.00%	1.74	7.60
Total Controlled Emissions:							**4.56**	**19.97**

Methodology:

Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8,760 hours per year = MMin² per Year
VOC = Maximum Coverage pounds per MMin² * Weight percentage organics (volatiles minus water) * Flash off * Throughput * Tons per 2,000 pounds = Tons per Year
Controlled Emissions = Uncontrolled Emissions * (1 - (Capture Efficiency * Destruction Efficiency))

Appendix A: Emission Calculations
VOC From Printing Press Operations

Company Name: R. R. Donnelley Seymour, Inc.
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: 071-13917-00024
Reviewer: Adeel Yousuf / EVP

AIG 006

Potential Uncontrolled Emissions:

Throughput for Packaging Rotogravure Printing Press:

Press I.D.	No. of Rollers	Maximum Line Speed (ft/min)	Convent Feet to Inches	Maximum Print Width (in)	60 Min/ Hour	8,760 HR YEAR	1/1,000,000	Potential MMin²/Year
AIG 006	1	1,400	12	38.0	60	8,760	1,000,000	335,543

PRINTING VOC:

Ink Name		Maxium Coverage lbs/ MMin²	Weight % Organics	Flash Off %	Potential Throughput MMin²/Year	Tons/ 2,000 lbs	VOC Pounds per Hour	VOC Tons per Year
AIG-006 Ink		1.000	36.00%	80%	335,543	2,000	11.03	48.32
AIG-006 Fountain Solution		0.500	5.00%	100%	335,543	2,000	0.96	4.19
AIG-006 Silicone Solution		0.200	0.00%	100%	335,543	2,000	0.00	0.00
AIG-006 Non-Maintenance Products		3.00000	1.00%	100%	335,543	2,000	1.15	5.03
Clean-Up Solvent VOCs								
AIG-006 Manual Cleaning Solution		0.032	100.00%	100%	335,543	2,000	1.24	5.44
Total Potential Uncontrolled Emissions:							**13.14**	**57.55**

				Controlled Emissions:				
Press I.D.				Control Device	Capture System Capture Efficiency	Thermal Oxidizer Destruction Efficiency	Controlled/Limited VOC Pounds per Hour	Controlled/Limited VOC Tons per Year
AIG-006 Ink				Thermal Oxidizer	100.00%	95.00%	0.55	2.42
AIG-006 Fountain Solution				Thermal Oxidizer	70.00%	95.00%	0.32	1.41
AIG-006 Silicone Solution				Thermal Oxidizer	0.00%	n/a	0.00	0.00
AIG-006 Non-Maintenance Products				Thermal Oxidizer	0.00%	n/a	1.15	5.03
AIG-006 Manual Cleaning Solution				Thermal Oxidizer	40.00%	95.00%	0.77	3.37
Total Controlled Emissions:							**2.02**	**8.85**

Notes: Printing operations are mutually exclusive of cleaning operations, and are the worst case for Press

Methodology:
Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8,760 hours per year = MMin² per Year
VOC = Maximum Coverage pounds per MMin² * Weight percentage organics (volatiles minus water) * Flash off * Throughput * Tons per 2,000 pounds = Tons per Year
Controlled Emissions = Uncontrolled Emissions * (1 - (Capture Efficiency * Destruction Efficiency))

Appendix A: Emission Calculations
VOC From Printing Press Operations

Company Name: R. R. Donnelley Seymour, Inc.
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: 071-13917-00024
Reviewer: Adeel Yousuf / EVP

AIG 007

Potential Uncontrolled Emissions:

Throughput for Packaging Rotogravure Printing Press:

Press I.D.	No. of Rollers	Maximum Line Speed (ft/min)	Convent Feet to Inches	Maximum Print Width (in)	60 Min/ Hour	8,760 HR YEAR	1/1,000,000	Potential MMin²/Year
AIG 007	1	1,400	12	38.0	60	8,760	1,000,000	335,543

PRINTING VOC:

Ink Name		Maxium Coverage lbs/ MMin²	Weight % Organics	Flash Off %	Potential Throughput MMin²/Year	Tons/ 2,000 lbs	VOC Pounds per Hour	VOC Tons per Year
AIG-007 Ink		1.000	36.00%	80%	335,543	2,000	11.03	48.32
AIG-007 Fountain Solution		0.500	5.00%	100%	335,543	2,000	0.96	4.19
AIG-007 Non-Maintenance Products		3.00000	1.00%	100%	335,543	2,000	1.15	5.03
Clean-Up Solvent VOCs								
AIG-007 Cleaning Solution		0.012	100.00%	100%	335,543	2,000	0.46	2.01
Total Potential Uncontrolled Emissions:							**13.14**	**57.55**

				Controlled Emissions:				
Press I.D.				Control Device	Capture System Capture Efficiency	Thermal Oxidizer Destruction Efficiency	Controlled/Limited VOC Pounds per Hour	Controlled/Limited VOC Tons per Year
AIG-007 Ink				Thermal Oxidizer	100.00%	95.00%	0.55	2.42
AIG-007 Fountain Solution				Thermal Oxidizer	70.00%	95.00%	0.32	1.41
AIG-007 Non-Maintenance Products				Thermal Oxidizer	0.00%	n/a	1.15	5.03
AIG-007 Cleaning Solution				Thermal Oxidizer	40.00%	95.00%	0.28	1.25
Total Controlled Emissions:							**2.02**	**8.85**

Notes: Printing operations are mutually exclusive of cleaning operations, and are the worst case for Press

Methodology:
Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8,760 hours per year = MMin² per Year
VOC = Maximum Coverage pounds per MMin² * Weight percentage organics (volatiles minus water) * Flash off * Throughput * Tons per 2,000 pounds = Tons per Year
Controlled Emissions = Uncontrolled Emissions * (1 - (Capture Efficiency * Destruction Efficiency))

Appendix A: Emission Calculations
VOC From Printing Press Operations

Company Name: R. R. Donnelley Seymour, Inc.
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: 071-13917-00024
Reviewer: Adeel Yousuf / EVP

AIG 008

Potential Uncontrolled Emissions:

Throughput for Packaging Rotogravure Printing Press:

Press I.D.	Maximum Line Speed (ft/min)	Convent Feet to Inches	Maximum Print Width (in)	60 Min/ Hour	8,760 HR YEAR	1/1,000,000	Potential MMin²/Year
AIG 008	1,400	12	38.0	60	8,760	1,000,000	335,543

PRINTING VOC:

Ink Name	Maxium Coverage lbs/ MMin²	Weight % Organics	Flash Off %	Potential Throughput MMin²/Year	Tons/ 2,000 lbs	VOC Pounds per Hour	VOC Tons per Year
Press Ready Inks	1.0	36.00%	80%	335,543	2,000	11.03	48.32
Press Ready Fountain Solutions	0.5	5.00%	100%	335,543	2,000	0.96	4.19
Press Ready Silicone Solutions	0.2	0.00%	100%	335,543	2,000	0.00	0.00
Misc. Non-Maintenance Products	3.0	1.00%	100%	335,543	2,000	1.15	5.03
Clean-Up Solvent VOCs							
Press Ready Cleaning Solutions	0.012	100.00%	100%	335,543	2,000	0.46	2.01
Total Potential Uncontrolled Emissions:						**13.14**	**57.55**

			Controlled Emissions:				
Press I.D.			Control Device	Capture System Capture Efficiency	Thermal Oxidizer Destruction Efficiency	Controlled/Limited VOC Pounds per Hour	Controlled/Limited VOC Tons per Year
Press Ready Inks			Thermal Oxidizer	100.00%	95.00%	0.55	2.42
Press Ready Fountain Solutions			Thermal Oxidizer	70.00%	95.00%	0.32	1.41
Press Ready Silicone Solutions			Thermal Oxidizer	0.00%	0.00%	0.00	0.00
Misc. Non-Maintenance Products			Thermal Oxidizer	0.00%	95.00%	1.15	5.03
Press Ready Cleaning Solutions			Thermal Oxidizer	40.00%	95.00%	0.28	1.25
Total Controlled Emissions:						**2.02**	**8.85**

Notes: Printing operations are mutually exclusive of cleaning operations, and are the worst case for Press

Methodology:

Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8,760 hours per year = MMin² per Year
VOC = Maximum Coverage pounds per MMin² * Weight percentage organics (volatiles minus water) * Flash off * Throughput * Tons per 2,000 pounds = Tons per Year
Controlled Emissions = Uncontrolled Emissions * (1 - (Capture Efficiency * Destruction Efficiency))

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: R. R. Donnelley Seymour, Inc.
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: 071-13917-00024
Reviewer: Adeel Yousuf / EVP
Date: 02/23/2002

UNCONTROLLED POTENTIAL EMISSIONS

Press AIG-002, 004, 005 and 006

Material	Press ID	Maximum Printing Throughput (MMin^2/yr)	Maximum or Equivalent Coverage (lbs/MMin^2)	Weight % Glycol Ethers	Weight % Xylene	Weight % Cumene	Weight % Naphthalene	Glycol Ethers Emissions (ton/yr)	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Total (tons/yr)
AIG 002 Ink	AIG-002	170,294	1.025	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-002 Glue	AIG-002	170,294	0.238	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-002 Fountain Solution	AIG-002	170,294	4.210	0.36%	0.00%	0.00%	0.00%	1.29	0.00	0.00	0.00	1.29
AIG-002 Non-Piling Additive	AIG-002	170,294	0.00024	60.00%	0.00%	0.00%	0.00%	0.01	0.00	0.00	0.00	0.01
AIG-002 Manual Cleaning Solution	AIG-002	170,294	0.079	0.00%	1.75%	1.40%	0.00%	0.00	0.12	0.09	0.00	0.21
AIG-004 Ink	AIG-004	635,766	1.000	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-004 Fountain Solution	AIG-004	635,766	0.500	0.36%	0.00%	0.00%	0.00%	0.57	0.00	0.00	0.00	0.57
AIG-004 Silicone Solution	AIG-004	635,766	0.200	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-004 Non-Maintenance Products	AIG-004	635,766	3.000	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-004 Manual Cleaning Solution	AIG-004	635,766	0.039	0.00%	0.00%	0.00%	2.00%	0.00	0.00	0.00	0.25	0.25
AIG-005 Ink	AIG-005	756,864	1.000	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-005 Fountain Solution	AIG-005	756,864	0.500	0.36%	0.00%	0.00%	0.00%	0.68	0.00	0.00	0.00	0.68
AIG-005 Silicone Solution	AIG-005	756,864	0.200	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-005 Non-Maintenance Products	AIG-005	756,864	3.000	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-005 Manual Cleaning Solution	AIG-005	756,864	0.032	0.00%	0.00%	0.00%	2.00%	0.00	0.00	0.00	0.25	0.25
AIG-006 Ink	AIG-006	335,543	1.000	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-006 Fountain Solution	AIG-006	335,543	0.500	0.36%	0.00%	0.00%	0.00%	0.30	0.00	0.00	0.00	0.30
AIG-006 Silicone Solution	AIG-006	335,543	0.200	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-006 Non-Maintenance Products	AIG-006	335,543	3.00000	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-006 Manual Cleaning Solution	AIG-006	335,543	0.046	0.00%	0.00%	0.00%	2.00%	0.00	0.00	0.00	0.15	0.15
							Total Uncontrolled Potential Emissions	**2.86**	**0.12**	**0.09**	**0.64**	

TOTAL UNCONTROLLED HAPS	**3.71**

Methodology:

HAPS emission rate (tons/yr) = Max. Throughput (MMin^2/yr) * Max. Coverage (lbs/MMin^2) * Wt. % HAP * (1 ton/2000 lbs)

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: R. R. Donnelley Seymour, Inc.
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: 071-13917-00024
Reviewer: Adeel Yousuf / EVP
Date: 02/23/2002

CONTROLLED POTENTIAL EMISSIONS

Press AIG-002, 004, 005 and 006

Material	Press ID	Maximum Printing Throughput (MMin^2/yr)	Maximum or Equivalent Coverage (lbs/MMin^2)	Capture System Collection Efficiency (%)	Thermal Oxidizer Destruction Efficiency (%)	Weight % Glycol Ethers	Weight % Xylene	Weight % Cumene	Weight % Naphthalene	Glycol Ethers Emissions (ton/yr)	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Total (tons/yr)
AIG 002 Ink	AIG-002	170,294	1.025	100.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-002 Glue	AIG-002	170,294	0.238	100.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-002 Fountain Solution	AIG-002	170,294	4.210	70.00%	95.00%	0.36%	0.00%	0.00%	0.00%	0.43	0.00	0.00	0.00	0.43
AIG-002 Non-Piling Additive	AIG-002	170,294	0.00024	70.00%	95.00%	60.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-002 Manual Cleaning Solution	AIG-002	170,294	0.079	40.00%	95.00%	0.00%	1.75%	1.40%	0.00%	0.00	0.07	0.06	0.00	0.13
AIG-004 Ink	AIG-004	635,766	1.000	100.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-004 Fountain Solution	AIG-004	635,766	0.500	70.00%	95.00%	0.36%	0.00%	0.00%	0.00%	0.19	0.00	0.00	0.00	0.19
AIG-004 Silicone Solution	AIG-004	635,766	0.200	0.00%	n/a	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-004 Non-Maintenance Products	AIG-004	635,766	3.000	0.00%	n/a	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-004 Manual Cleaning Solution	AIG-004	635,766	0.039	40.00%	95.00%	0.00%	0.00%	0.00%	2.00%	0.00	0.00	0.00	0.15	0.15
AIG-005 Ink	AIG-005	756,864	1.000	100.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-005 Fountain Solution	AIG-005	756,864	0.500	70.00%	95.00%	0.36%	0.00%	0.00%	0.00%	0.23	0.00	0.00	0.00	0.23
AIG-005 Silicone Solution	AIG-005	756,864	0.200	0.00%	n/a	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-005 Non-Maintenance Products	AIG-005	756,864	3.000	0.00%	n/a	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-005 Manual Cleaning Solution	AIG-005	756,864	0.032	40.00%	95.00%	0.00%	0.00%	0.00%	2.00%	0.00	0.00	0.00	0.15	0.15
AIG-006 Ink	AIG-006	335,543	1.000	100.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-006 Fountain Solution	AIG-006	335,543	0.500	70.00%	95.00%	0.36%	0.00%	0.00%	0.00%	0.10	0.00	0.00	0.00	0.10
AIG-006 Silicone Solution	AIG-006	335,543	0.200	0.00%	n/a	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-006 Non-Maintenance Products	AIG-006	335,543	3.00000	0.00%	n/a	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
AIG-006 Manual Cleaning Solution	AIG-006	335,543	0.032	40.00%	95.00%	0.00%	0.00%	0.00%	2.00%	0.00	0.00	0.00	0.07	0.07
								Total Uncontrolled Potential Emissions		**0.96**	**0.07**	**0.06**	**0.37**	

Methodology:
HAPS emission rate (tons/yr) = Max. Throughput (MMin^2/yr) * Max. Coverage (lbs/MMin^2) * Wt. % HAP * (1 ton/2000 lbs) * (1-(Capture Efficiency * Control Efficiency))

TOTAL UNCONTROLLED HAPS	**1.46**

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: R. R. Donnelley Seymour, Inc.
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: 071-13917-00024
Reviewer: Adeel Yousuf / EVP
Date: 02/23/2002

UNCONTROLLED POTENTIAL EMISSIONS

Press AIG-007 and 008

Material	Press ID	Maximum Printing Throughput (MMin^2/yr)	Maximum or Equivalent Coverage (lbs/MMin^2)	Weight % Glycol Ethers	Weight % Xylene	Weight % Cumene	Weight % Naphthalene	Weight % Vinyl Acetate	Glycol Ethers Emissions (ton/yr)	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Vinyl Acetate Emissions (ton/yr)	Total (tons/yr)
AIG-007 Ink	AIG-007	335,543	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
AIG-007 Fountain Solution	AIG-007	335,543	0.500	0.36%	0.00%	0.00%	0.00%	0.00%	0.30	0.00	0.00	0.00	0.00	0.30
AIG-007 Non-Maintenance Products	AIG-007	335,543	3.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
AIG-007 Manual Cleaning Solution	AIG-007	335,543	0.012	0.00%	2.00%	2.00%	2.00%	0.01%	0.00	0.04	0.04	0.04	0.00	0.12
AIG-008 Ink	AIG-008	335,543	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
AIG-008 Fountain Solution	AIG-008	335,543	0.500	10.00%	0.00%	0.00%	0.00%	0.00%	8.39	0.00	0.00	0.00	0.00	8.39
AIG-008 Silicone Solution	AIG-008	335,543	0.200	0.00%	0.00%	0.00%	0.00%	0.50%	0.00	0.00	0.00	0.00	0.17	0.00
AIG-008 Non-Maintenance Products	AIG-008	335,543	3.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
AIG-008 Manual Cleaning Solution	AIG-008	335,543	0.012	0.00%	2.00%	2.00%	2.00%	0.01%	0.00	0.04	0.04	0.04	0.00	0.12
					Total Uncontrolled Potential Emissions				**8.69**	**0.08**	**0.08**	**0.08**	**0.17**	

TOTAL UNCONTROLLED HAPS **9.10**

Note:
Printing and cleaning operations are mutually exclusive of one another

Methodology:
HAPS emission rate (tons/yr) = Max. Throughput (MMin^2/yr) * Max. Coverage (lbs/MMin^2) * Wt. % HAP * (1 ton/2000 lbs)

Company Name: R. R. Donnelley Seymour, Inc.
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: 071-13917-00024
Reviewer: Adeel Yousuf / EVP
Date: 02/23/2002

CONTROLLED POTENTIAL EMISSIONS

Press AIG-007 and 008

Material	Press ID	Maximum Printing Throughput (MMin^2/yr)	Maximum or Equivalent Coverage (lbs/MMin^2)	Capture System Collection Efficiency (%)	Thermal Oxidizer Destruction Efficiency (%)	Weight % Glycol Ethers	Weight % Xylene	Weight % Cumene	Weight % Naphthalene	Weight % Vinyl Acetate	Glycol Ethers Emissions (ton/yr)	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Vinyl Acetate Emissions (ton/yr)	Total (tons/yr)
AIG-007 Ink	AIG-007	335,543	1.000	100.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
AIG-007 Fountain Solution	AIG-007	335,543	0.500	70.00%	95.00%	0.36%	0.00%	0.00%	0.00%	0.00%	0.10	0.00	0.00	0.00	0.00	0.10
AIG-007 Non-Maintenance Products	AIG-007	335,543	3.000	0.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
AIG-007 Auto and Manual Cleaning Solution	AIG-007	335,543	0.012	40.00%	95.00%	0.00%	2.00%	2.00%	2.00%	0.01%	0.00	0.02	0.02	0.02	0.00	0.07
AIG-008 Ink	AIG-008	335,543	1.000	100.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
AIG-008 Fountain Solution	AIG-008	335,543	0.500	70.00%	95.00%	10.00%	0.00%	0.00%	0.00%	0.00%	2.81	0.00	0.00	0.00	0.00	2.81
AIG-008 Silicone Solution	AIG-008	335,543	0.200	0.00%	n/a	0.00%	0.00%	0.00%	0.00%	0.50%	0.00	0.00	0.00	0.00	0.17	0.00
AIG-008 Non-Maintenance Products	AIG-008	335,543	3.000	0.00%	n/a	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
AIG-008 Auto and Manual Cleaning Solution	AIG-008	335,543	0.012	40.00%	95.00%	0.00%	2.00%	2.00%	2.00%	0.01%	0.00	0.02	0.02	0.02	0.00	0.07
						Total Uncontrolled Potential Emissions					**2.91**	**0.05**	**0.05**	**0.05**	**0.17**	

TOTAL UNCONTROLLED HAPS	**3.23**

Methodology:

HAPS emission rate (tons/yr) = Max. Throughput (MMin^2/yr) * Max. Coverage (lbs/MMin^2) * Wt. % HAP * (1 ton/2000 lbs) * (1-(Capture Efficiency * Control Efficiency))

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: R. R. Donnelley Seymour, Inc.
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: 071-13917-00024
Reviewer: Adeel Yousuf / EVP
Date: 02/23/2002

Insignificant Activities: Operations emitting less than 15 lbs/day of VOC:

1) Operation: Film Wash
Throughput maximum: 637.5 gal/yr (@5.49 lb/gal, based on 8760 hr/yr)

637.5 gal/yr x (5.49lb/gal) x (1 ton/2000 lb) = **1.75 tons VOC/yr**

2) Operation: Ink Jets
Throughput maximum: 860 lb/yr (@ 4.34 wt. % VOC, based on 8760 hr/yr)

860 lb/yr x (0.0434) x (1 ton/2000 lb) = **0.02 tons VOC/yr**

3) Operation: Plate Processor - Developer
Throughput maximum: 4,214 lb/yr (@ 1.30 wt. % VOC, based on 8760 hr/yr)

4,214 lb/yr x (0.013) x (1 ton/2000 lb) = **0.03 tons VOC/yr**

4) Operation: Plate Processor - Finisher
Throughput maximum: 2,356 lb/yr (@ 0.90 wt. % VOC, based on 8760 hr/yr)

2,356 lb/yr x (0.009) x (1 ton/2000 lb) = **0.01 tons VOC/yr**

5) Operation: Ink Jets
Throughput maximum: 730 lb/yr (@ 8.25 wt. % VOC, based on 8760 hr/yr)

730 lb/yr x (0.0825) x (1 ton/2000 lb) = **0.03 tons VOC/yr**

Insignificant Activity Emissions

Pollutant Pollutant

	Film Wash	Ink Jets	Plate Developer	Plate Finisher	Glass Cleaner	Total
VOC	1.75	0.02	0.03	0.01	0.03	1.84

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: R. R. Donnelley Seymour, Inc.
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: 071-13917-00024
Reviewer: Adeel Yousuf / EVP
Date: 02/23/2002

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
65.9	577.1

Facilities	**MMBtu/hr**
One (1) Thermal Oxidizer (TAB-1)	0.70
One (1) Thermal Oxidizer (TAB-2)	1.98
Two (2) dryers, each rated at 4.0 MMBtu/hr	8.00
Two (2) dryers, each rated at 6.0 MMBtu/hr	12.00
Two (2) dryers, each rated at 7.0 MMBtu/hr	14.00
Three (3) TEC dryers, each rated at 8.0 MMBtu/hr	24.00
One (1) Heater	2.20
Ten (10) Heaters, each rated at 0.30 MMBtu/hr	3.00
Total	**65.88**

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.55	2.19	0.17	28.86	1.59	24.24

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM Btu/hr 0.3 - < 100

HAPs Emissions

Company Name: R. R. Donnelley Seymour, Inc.
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: 071-13917-00024
Reviewer: Adeel Yousuf / EVP
Date: 02/23/2002

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	6.060E-04	3.463E-04	2.164E-02	5.194E-01	9.811E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.443E-04	3.174E-04	4.040E-04	1.097E-04	6.060E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.